This listing of claims will replace all prior versions, and listings, of claims in the application:

The Status of the Claims

1. (Currently Amended) A method to control a distance between a chip die and a substrate, the method comprising:

coupling at least one spacer to the chip die or the substrate, the spacer having a length and a melting point, the melting point of the spacer being greater than a melting point of solder; and

bonding the chip die to the substrate without melting the spacer [[,]] such that the length of the spacer substantially defines the distance between the chip die and the substrate.

2. (Currently Amended) A method as defined in claim 1, wherein the at least one spacer comprises at least one of a stud, a ball, a ~~gold~~ stud, a trapezoid, a leg, a post, a blob, a wedge, or a brace.

3. (Original) A method as defined in claim 1, wherein an end of the at least one spacer is flattened.

4. (Original) A method as defined in claim 1, wherein the at least one spacer has a core and a solder covering.

5. (Original) A method as defined in claim 1, wherein the chip die comprises a flip chip die.

6. (Currently Amended) A method as defined in claim 5, wherein bonding the flip chip die to the substrate optically couples an optical element of the flip chip die to a waveguide mounted on the substrate.

7. (Original) A method as defined in claim 1, wherein the substrate comprises at least one conductive pad coupled to its surface.

8. (Original) A method as defined in claim 7, wherein the at least one conductive pad is a solder pad.

9. (Original) A method as defined in claim 1, wherein bonding the die to the substrate comprises creating a solder joint between the at least one spacer and the substrate.

10. (Original) A method as defined in claim 9, wherein the solder joint between the spacer and the substrate creates an electrical connection between the chip die and the substrate.

11. (Currently Amended) A method as defined in claim 1, wherein bonding the chip die to the substrate comprises thermocompression bonding the chip die to the substrate.

12. (Currently Amended) A method to mount an optical flip chip die comprising:

coupling at least one spacer to a first one of a ~~the~~ substrate or the flip chip die, the spacer having a length and having a melting point greater than a melting point of a conductive pad associated with a second one of the substrate or the flip chip die; and

thermocompression bonding the at least one spacer to the at least one conductive pad on the second one of the optical flip chip die or the substrate to establish a distance between the optical flip chip die and an optical waveguide by melting the conductive pad and without melting the spacer, such that the spacer retains the length during and after bonding.

13. (Currently Amended) A method as defined in claim 12, wherein the at least one spacer comprises at least one of a stud, a ball, a ~~gold~~ stud, a trapezoid, a leg, a post, a blob, a wedge, or a brace.

14. (Currently Amended) A method as defined in claim 12, wherein the length of the spacer determines the distance between the optical flip chip and the optical waveguide ~~comprises a distance that~~ to substantially ~~maximizes~~ maximize an optical coupling between the optical flip chip and the optical waveguide.

15. (Currently Amended) A method as defined in claim 12, wherein the at least one spacer has a core and a solder covering, the core defining the length of the spacer.

16. (Currently Amended) A method as defined in claim 15 ~~12~~, wherein the core has a first melting point, the solder covering has a second melting point, and the first melting point is greater than the second melting point.

17. (Original) A method as defined in claim 12, wherein the thermocompression bonding creates an electrical connection between the optical flip chip and the substrate.

18.-24. (Cancelled)

Please add the following new claim:

25. (New) A method as defined in claim 4, wherein the core defines the length and has the melting point above the melting point of solder.